3

Trial Day 1
Volume 2 of 2
November 12, 1997

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND
NORTHERN DIVISION

GLAXO WELLCOME INC., et al. Plaintiffs v. PHARMADYNE CORPORATION, et al. Defendants	Civil Docket No. AMD-96-455 And Civil Docket No. AMD-96-1853 (Consolidated)

Baltimore, Maryland
November 12, 1997
2:00 p.m.

The above-entitled matter came on for trial before
The Honorable Andre M. Davis

A P P E A R A N C E S

On behalf of the Plaintiffs:
Stephen Judlowe, Esquire
John Henry Lewin, Jr., Esquire
Brian P. Murphy, Esquire
Robert Gibbons, Esquire
Regina Ambery, Esquire
Jason Lief, Esquire

On behalf of the Defendants:
James Rubin, Esquire
Alan H. Bernstein, Esquire
Robert S. Silver, Esquire
John M. Seeberger, Esquire
Deborah K. Besche, Esquire

Reported by: Betty Lou Walls, RPR

WALLS REPORTING, INC.
714 PARK AVENUE, BALTIMORE, MD 21201
410-728-9020 FAX 410-728-9024

I N D E X

WALLS REPORTING, INC.
714 PARK AVENUE, BALTIMORE, MD 21201
410-728-9020 FAX 410-728-9024

solution, Ilube eye drops and Zantac capsules.

Q Focusing if you will, Doctor, on the time period from 1985 through 1986, can you tell us what your responsibilities with Glaxo were?

A I was research leader leading a team responsible for a number of projects, one of which would have been Zantac Syrup.

Q How many years experience have you had with the formulas of pharmaceuticals?

A 17 years I have been with Glaxo, plus two years before that doing drug formulation studies at the University of Bath in the UK.

Q Based on that 19 years of experience with formulating pharmaceuticals can you give the Court some idea of the primary considerations a formulation scientist is concerned with in formulating a product?

A Yes. First and foremost is the safety, efficacy and quality.

Q Can you define those terms for the Court?

A The safety is to make sure we do no harm to the patient, the quality to ensure that the product is of a high quality, one that we will be proud of and will be suitable for a patient to use and feel confident in with the right specifications, the controls, the manufacturing controls in place, and efficacy to ensure that the product works, does

plaintiffs' trial exhibit 63.

MR. GIBBONS: That is excerpted, Your Honor, that is not the full document.

Q Dr. Long, can you identify plaintiffs' trial exhibit number 63?

A Yes. This is a Notice for Claimed Investigational Exemption for a New Drug, also known as an IND, for Zantac Syrup.

Q I ask you to direct your attention to production number 71598 thereof. Do you have that, Dr. Long?

A Yes, thank you, yes.

Q Under section 2 point 1, ranitidine syrup, active ingredient, focusing in on active ingredient and other ingredients, to your knowledge, does this document accurately set forth the components of the original Zantac Syrup formulation for the U.S.?

A Yes, it does.

Q And am I correct when I note that the first three -- excuse me, the second, third and fourth components under other ingredients are the parabens to which you referred earlier?

A They are. To explain, the hydroxybenzoate is the term used in the UK. Methyl hydroxybenzoate in the UK is equivalent to methyl hydroxyparabens in the U.S.

Q Those are the parabens?

A Yes.
Q They constitute the original preservative system for the Zantac Syrup?
A The original antimicrobial preservative system, yes.
Q Directing your attention to 71655, production page, the next page, paragraph 5.8.1, can you review that for a moment, Doctor?
A Yes, thank you.
Q Based on your review and your knowledge, can you confirm that the original formulation for the Zantac Syrup was based on that for the Zantac injection?
A Yes, it was.
Q Turning to 71656 of plaintiffs' trial exhibit 63, the paragraph that proceeds the heading package, could you review, that, please?
(Pause for document examination.)
A Yes.
Q Based on your review and your knowledge, Doctor, can you confirm that the original Zantac Syrup formulation met the qualifications of the United States Pharmacopeia for microorganisms?
A Yes, it was, samplings of the syrup were subjected to the APE tests, abbreviation for antimicrobial preservatives effectiveness test, and the samples were found to comply.
Q Directing your attention to page 71676 of plaintiffs'

trial exhibit 63, could you review the paragraph 5.8.4 entitled Proposed Shelf-Life, Dr. Long?

A Yes. We had limited stability data at that time and, therefore, the shelf-life was very conservative, three months at controlled room temperature, and in certain parts of the distribution chain they say it was stored in a refrigerator.

Q Now I'm going to ask you to turn your attention to plaintiffs' trial exhibit 244.

Doctor, in Exhibit 244, could you turn your attention to page number Y076348 and would you review that?

(Pause for document examination.)

A Yes, this page describes an amendment to the original IND and it describes how the preservative system was changed after we performed further work and discovered the problem with a particular microorganism, *Pseudomonas cepacia*.

Q Is it correct to say, Dr. Long, that although the paraben preservative system of the original Zantac Syrup formulation was sufficient to meet the conditions set forth in the United States Pharmacopeia, another microorganism was subsequently detected?

A Yes, it was detected at a later stage after the initial work.

Q What is the name of that microorganism?

A *Pseudomonas cepacia*.

Q Did anything happen as a result of Glaxo's discovery of